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<https://rtvalves.nt-rt.ru> || rea@nt-rt.ru

Задвижки с внутренней крышкой 235, 335, 335-J, 435, 435-H, 535

Stem

In all outside screw valves the stem is provided with integral backseat as emergency device in case of packing failure. The stem is produced with special turning machinery for a high resistance and durability. The stem thread is metric type according to ISO 2901 with trapezoidal section. The thread is left hand type in the way that the valve opens rotating clockwise the handwheel.

To avoid any leakage the stem has a high finish degree and a strict diametrical clearance.

Gasket

The standard gasket is in pure graphite stainless steel reinforced. This type of gasket is suitable for many different applications. For special applications (cryogenic gases, high corrosion acids etc.) RT can supply special gaskets designed for the specific application or according to customer specifications. All valves with round body are provided by standard with chambered gasket.

Packing

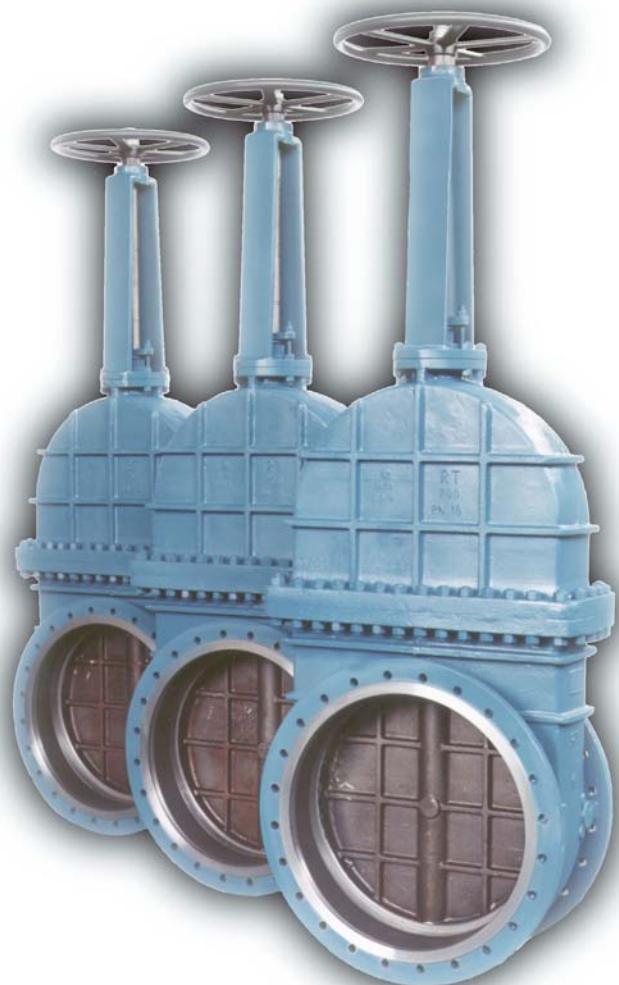
The standard packing is made of four or more pure graphite rings with square section. The first and the last ring are reinforced with stainless steel to avoid the extrusion.

Other materials like PTFE are available on request. The graphite is always treated with special corrosion inhibitors to prevent the corrosion of ferritic stainless steel stem due to galvanic cell action.

For special applications (cryogenic gases,

high corrosion acids, etc.) RT can supply special packings designed for the specific application or according to customer requirements.

To meet the TA-Luft requirements, on request, RT can supply valves with special design of stem and packing. The stuffing box housing is produced with a high finish degree and a strict clearance to guarantee a perfect tight of the packing.





INSTALLATION

The standard installation position for the gate valves is with the vertical stem and upright (operator on the top). This position avoids many adverse influences and stresses during the functioning. Only the gate valves with split wedge can be installed also in horizontal position. The gate valves close turning the handwheel clock-wise. For a correct and easy installation please refer to the installation manual and follow the instructions there contained.

WARNINGS

- § The gate valves are not designed for throttling and regulating service. A prolonged use in partially open position would generally cause some damages.
- § The gate valves are not suitable for media which tend to produce high sedimentation or encrustation, as well as fluids containing foreign solids which, due to their hardness, present the risk to damage the seat faces.
- § In case of horizontal installation the valves shall be always provided with split wedge and, for sizes over 200 mm, the yoke shall be sustained by appropriate devices.
- § The solid wedge is always required for medium that can be subjected to solidification.
- § In case of medium that, due to temperature gradient, can change his physical phase from liquid to gas or vapour, the gate valves shall be provided by appropriate safety device.



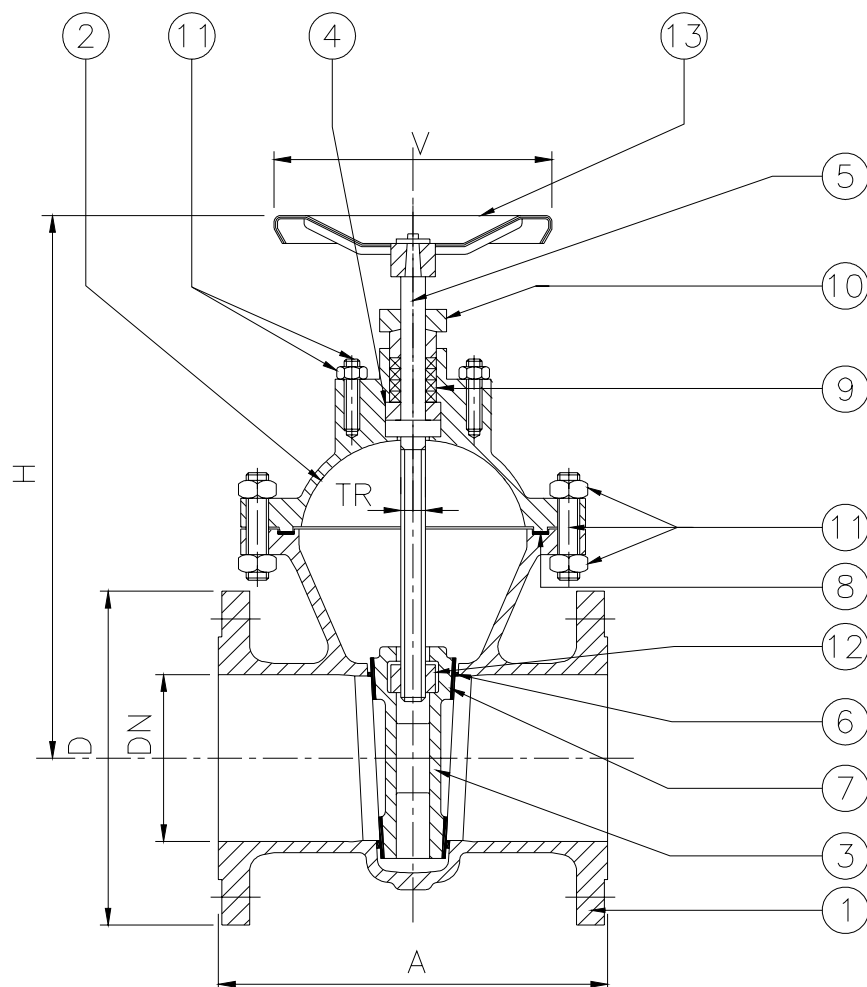
Gate Valve Inside Screw

PN 40 DN 50 - DN 150

PN 25 DN 200 - DN 800

Flanges PN 40 or PN 25 or PN 16

Fig. 235-535



0948

Rel. 5.0

Standard features:

- ☒ Design EN 12516
EN 1984
- ☒ Face to face EN 558 series 15
DIN 3202 F5
- ☒ Flanges EN 1092-1/21/B1
- ☒ Materials EN 10213
EN 10269
EN 10088
- ☒ Bolts and nuts EN 1515-1
- ☒ Welding overlay AD-M HP 0
- ☒ Testing EN 1984
EN 12266
- ☒ Marking EN 19
- ☒ Certificates EN 10204

Optional versions:

- ☐ AD 2000 - A4
- ☐ TRD 110
- ☐ DIN 3230 Part 4
- ☐ DIN 3230 Part 5
- ☐ DIN 3230 Part 6
- ☐ TRbF 131
- ☐ TRbF 301 or 302
- ☐ ATEX
- ☐ TA-Luft
- ☐ With flanges PN 10 or PN 6
- ☐ With flanges form A, B2, C, D, E, F, G, H
- ☐ With butt welding ends (EN 12982 / EN 12627)
- ☐ With special devices (see pages 34 - 35)

	DESCRIPTION	FIG. 235	FIG. 335	FIG. 335-J	FIG. 435	Fig. 435-H	FIG. 535
1	Body	1.0619	1.4581	1.4308	1.7357	1.7379	1.1138
2	Bonnet	1.0619	1.4581	1.4308	1.7357	1.7379	1.1138
3	x Wedge	1.0619	1.4581	1.4308	1.7357	1.7379	1.1138
4	x Retaining ring	1.0511	1.4571	1.4301	1.0511	1.0511	1.0511
5	x Stem	1.4021 ⁽¹⁾	1.4571 ⁽¹⁾	1.4301 ⁽¹⁾	1.4021 ⁽¹⁾	1.4021 ⁽¹⁾	1.4021 ⁽¹⁾
6	Body seats	1.4502 ⁽²⁾	1.4430 ⁽²⁾	1.4316 ⁽²⁾	1.4502 ⁽²⁾	Stellite	1.4502 ⁽²⁾
7	Wedge seats	1.4502 ⁽²⁾	1.4581 ⁽²⁾	1.4308 ⁽²⁾	1.4502 ⁽²⁾	Stellite	1.4502 ⁽²⁾
8	O Gasket	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾	PTFE ⁽³⁾	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾
9	O Packing	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾	PTFE ⁽³⁾	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾	Graphite + SS ⁽³⁾
10	x Gland	1.0402	1.4571	1.4301	1.0402	1.0402	1.4301
11	Bolts	1.7225 ⁽⁴⁾	1.4301 ⁽⁴⁾	1.4301 ⁽⁴⁾	1.7711 ⁽⁴⁾	1.7711 ⁽⁴⁾	1.7225 ⁽⁴⁾
11	Nuts	1.1191 ⁽⁴⁾	1.4301 ⁽⁴⁾	1.4301 ⁽⁴⁾	1.7225 ⁽⁴⁾	1.7225 ⁽⁴⁾	1.7225 ⁽⁴⁾
12	x Sleeve	1.4401 NHT	1.4401 NHT	1.4301 NHT	1.4401 NHT	1.4401 NHT	1.4401 NHT
13	x Handwheel	Pressed steel	Pressed steel	Pressed steel	Pressed steel	Pressed steel	Pressed steel

⁽¹⁾ Also available on request 1.4571, 1.4301, 1.3964, Hastelloy, or other materials.

⁽²⁾ Also available on request stellite, 1.4462 (duplex), 1.4430, 1.4316, Hastelloy, or other materials.

⁽³⁾ Also available on request PTFE, Gore-tex, graphite, or other materials and different desing (e.g. cam-profile).

⁽⁴⁾ Also available on request 1.7225 / 1.1191, 1.7711 / 1.7225, 1.4401, 1.4301, A4-70 or other materials.

O recommended spare parts for 2 years standard service; x recommended spare parts for 5 years standard service.

Dimensions

	DN	A	D	H	TR	V	Kg	$\Delta p^{(5)}$	Wedge ⁽⁶⁾
PN 40	50	250	165	275	18 x 4	200	20	40	Split
	65	270	185	320	20 x 4	200	30	40	Split
	80	280	200	330	20 x 4	200	35	40	Split
	100	300	235	365	20 x 4	200	50	40	Split
	125	325	270	480	25 x 5	250	65	40	Split
	150	350	300	500	25 x 5	250	95	40	Flexible
PN 25	200	400	360	570	28 x 5	300	145	16	Flexible
	250	450	425	700	32 x 6	400	215	16	Flexible
	300	500	485	765	36 x 6	400	315	14	Flexible
	350	550	555	915	36 x 6	500	385	12	Flexible
	400	600	620	1030	40 x 7	500	570	0	Flexible
	450	650	670	1140	40 x 7	500	755	0	Flexible
	500	700	730	1240	50 x 8	600	815	0	Flexible
	600	800	845	1440	50 x 8	600	1070	0	Flexible
	700	900	960	1540	60 x 9	600	1925	0	Solid
	800	1000	1085	1710	70 x 10	600	2270	0	Solid

⁽⁵⁾ Maximum differential pressure for manoeuvre without gear box or by-pass according to EN 12570 (if equal to 0 the gearbox is recommended).

⁽⁶⁾ Standard wedge type. Other execution available on request.

Pressure Temperature Ratings (°C / bar)

	PN	-195	-150	-100	-50	-10	0	20	100	150	200	250	300	350	400	425	450	475	500	525	550	575	600
Fig. 235	25				25.0	25.0	24.7	23.3	21.4	19.4	17.8	16.1	15.0	14.4	11.8	9.2							
Fig. 335 ⁽⁷⁾	25			25.0	25.0	25.0	24.1	20.6	19.2	17.8	16.9	16.1	15.3	14.4	14.2	13.9	13.6	13.3	13.1	12.8			
Fig. 335-J	25	25.0	25.0	25.0	25.0	25.0	23.6	17.8	15.8	13.9	13.1	12.2											
Fig. 435 ⁽⁷⁾ ⁽⁸⁾	25				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	23.9	22.2	21.7	21.1	17.1	13.0	9.6	6.1			
Fig. 435-H ⁽⁸⁾	25				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.6	24.2	19.7	15.1	11.2	7.3	5.2	3.1	
Fig. 535	25				25.0	25.0	25.0	24.4	22.2	21.1	20.0	19.4	18.9										
Fig. 235	40				40.0	40.0	39.5	37.3	34.2	31.1	28.4	25.8	24.0	23.1	18.9	14.8							
Fig. 335 ⁽⁷⁾	40			40.0	40.0	40.0	38.6	32.9	30.7	28.4	27.1	25.8	24.4	23.1	22.7	22.2	21.8	21.3	20.9	20.4			
Fig. 335-J	40	40.0	40.0	40.0	40.0	40.0	37.7	28.4	25.3	22.2	20.9	19.6											
Fig. 435 ⁽⁷⁾ ⁽⁸⁾	40				40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	38.2	35.6	34.7	33.8	27.3	20.8	15.3	9.8			
Fig. 435-H ⁽⁸⁾	40				40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	39.4	38.8	31.5	24.2	18.0	11.7	8.4	5.0	
Fig. 535	40				40.0	40.0	40.0	39.1	35.6	33.8	32.0	31.1	30.2										

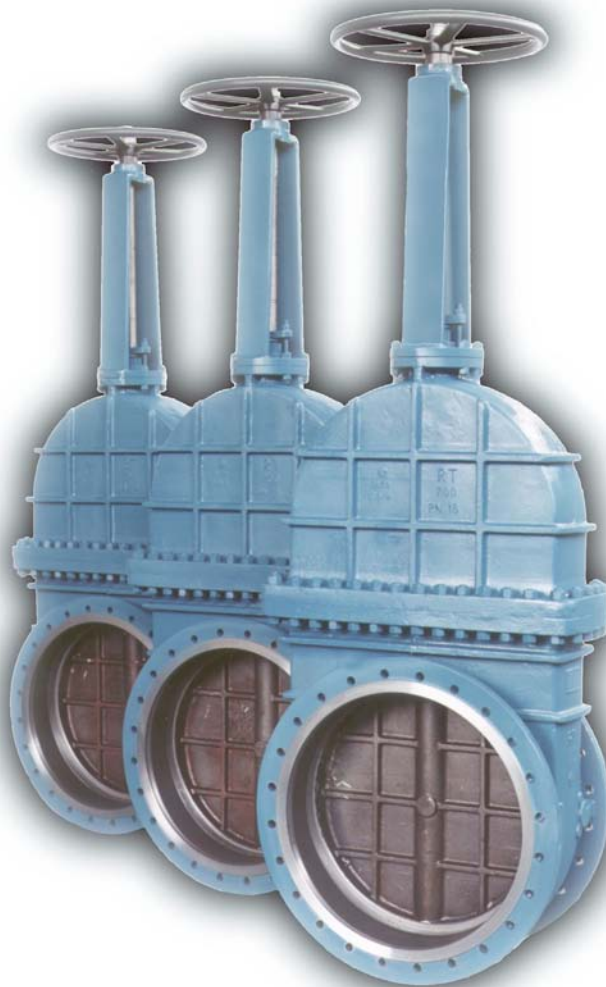
Please, in the inquiry and in the order, specify always the maximum service temperature when it's over 100 °C.

If the valves are provided with flanged connection PN 16 or PN 10 the maximum allowable pressure should be proportionally reduced.

⁽⁷⁾ Suitable over 450 °C only if provided with stellite seats. ⁽⁸⁾ Suitable over 530 °C only if provided with 1.3964 stem.

General sale and delivery conditions and product guarantee as specified at pages 56 and 57.

Due to constant improvement all data and details contained in this catalogue are purely indicative and they can be subjected to change without notice.



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